

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/029526

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G07C5/00 G08G1/127 B60Q1/52 B60R25/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G07C G08G B60Q B60R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 94/07225 A (AT/COMM INCORPORATED) 31 March 1994 (1994-03-31) page 2, lines 28-35 page 3, lines 3-18, 28-34 page 5, lines 10-16 page 5, line 30 - page 6, line 6 page 8, line 33 - page 9, line 6 page 9, lines 19-26 figures 1-3	1-6, 9-17
X	US 2002/084918 A1 (ROACH JOHN EDWARD) 4 July 2002 (2002-07-04) paragraphs '0013!, '0014! paragraphs '0019!, '0021!, '0026! paragraphs '0069! - '0073! paragraphs '0076! - '0079! figures 1, 2, 5	1-3, 6, 9-11, 13-15, 17

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

14 March 2005

Date of mailing of the international search report

21/03/2005

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/029526

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 5 008 661 A (RAJ ET AL) 16 April 1991 (1991-04-16)</p> <p>column 5, lines 3-11,26-38,45-58 column 6, lines 2-10,30-41,48-59 column 7, lines 25-34 column 8, lines 6-12 column 8, line 65 - column 9, line 18 column 9, lines 27-46 column 11, lines 16-21 column 12, lines 23-27 figures 1,8</p>	<p>1,4-6,9, 12,13, 16,17</p>
X	<p>FR 2 637 712 A (DUBUC PAUL) 13 April 1990 (1990-04-13)</p> <p>page 1, lines 1-7 page 2, lines 22-24 page 3, line 30 - page 4, line 7 page 6, lines 10-25 page 7, line 30 - page 8, line 31 page 10, line 36 - page 11, line 31 page 19, lines 15-24,30-34</p>	<p>1-3,5-7, 9-11, 13-15,17</p>

INTERNATIONAL SEARCH REPORT

Information on patent family members

Inte 1al Application No

PCT/US2004/029526

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9407225	A	31-03-1994	US 5347274 A	13-09-1994
			AU 4857993 A	12-04-1994
			WO 9407225 A1	31-03-1994
			US 6653946 B1	25-11-2003
			US 2003067396 A1	10-04-2003
			US 5805082 A	08-09-1998
US 2002084918	A1	04-07-2002	NONE	
US 5008661	A	16-04-1991	CA 1316584 C	20-04-1993
			EP 0238640 A1	30-09-1987
			WO 8702165 A1	09-04-1987
FR 2637712	A	13-04-1990	FR 2637712 A1	13-04-1990

PATENT COOPERATION TREATY

REC'D 17 MAR 2005

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From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

3/3

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2004/029526

International filing date (day/month/year)
10.09.2004

Priority date (day/month/year)
16.09.2003

International Patent Classification (IPC) or both national classification and IPC
G07C5/00, G08G1/127, B60Q1/52, B60R25/10

Applicant
QUALCOMM INCORPORATED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2004/029526

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2004/029526

Box No. II Priority

1. ☒ The following document has not been furnished:
- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
 - ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).
- Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. ☐ It has not been possible to consider the validity of the priority claim because a copy of the priority document was not available to the ISA at the time that the search was conducted (Rule 17.1). This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.
4. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	5,6,8
	No: Claims	1-4,7,9-17
Inventive step (IS)	Yes: Claims	8
	No: Claims	1-7,9-17
Industrial applicability (IA)	Yes: Claims	1-17
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

D1: WO 94/07225 A (AT/COMM INCORPORATED) 31 March 1994 (1994-03-31)

D2: US 2002/084918 A1 (ROACH JOHN EDWARD) 4 July 2002 (2002-07-04)

D3: US-A-5 008 661 (RAJ ET AL) 16 April 1991 (1991-04-16)

D4: FR-A-2 637 712 (DUBUC PAUL) 13 April 1990 (1990-04-13)

1. Clarity (Art. 6 PCT).

Claims 9, 13

Although claims 9 and 13 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter because claim 13 contains all the features of claim 9 and differ from each other only with regard to the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.

2. Novelty (Art. 33 (2) PCT).

Claim 9

The document D1 discloses (the references in parentheses applying to this document):

an apparatus for providing a hazardous material alert for use with a vehicle that is transporting hazardous material (pag. 2, lin. 29-35, pag. 3, lin. 3-6, pag. 5, lin. 10-16, pag. 5, lin. 30-36; fig. 1), the apparatus comprising:
means for detecting an hazard event (pag. 3, lin. 13-18, pag. 6, lin. 1-6, pag. 8, lin. 33 - pag. 9, lin. 6; fig. 1-3); and
means for transmitting the hazardous material alert in response to the hazard event, wherein the hazardous material alert includes information relating to the hazardous

material (pag. 3, lin. 8-13 and 28-34, pag. 8, lin. 33 - pag. 9, lin. 6, pag. 9, lin. 19-26).

As all the features of claim 9 are present in the same combination in document D1, the subject-matter of claim 9 is not new (Article 33 (2) PCT).

It is pointed out that the subject-matter of claim 9 is not new (Article 33 (2) PCT) also over the disclosure of documents D2 (see par. 0013, 0014, 0019, 0021, 0026, 0069-0073, 0076-0079; fig. 1, 2, 5), D3 (see col. 5, lin. 3-11, 26-38 and 45-58, col. 6, lin. 2-10, 30-41 and 48-59, col. 7, lin. 25-34, col. 8, lin. 6-12, col. 8, lin. 65 - col. 9, lin. 18, col. 9, lin. 27-46, col. 12, lin. 23-27; fig. 1, 8) or D4 (see pag. 1, lin. 1-7, pag. 2, lin. 22-24, pag. 3, lin. 30 - pag. 4, lin. 7, pag. 6, lin. 10-25, pag. 7, lin. 30 - pag. 8, lin. 31, pag. 10, lin. 36 - pag. 11, lin. 31, pag. 19, lin. 15-24 and 30-34).

Claim 1

The subject-matter of claim 1 corresponds in terms of method steps to that of claim 9. The objections raised in respect of this latter claim, therefore, also apply, mutatis mutandis, to claim 1 which is thus not new (Article 33 (2) PCT).

Claim 13

The subject-matter of claim 13 corresponds to that of claim 9 and defines more specifically "the means for detecting a hazard event" as "a detection logic for receiving an indication that a hazard event has occurred", and "the means for transmitting the hazardous material alert in response to the hazard event" as "a transmission logic coupled to the detection logic and operating to transmit the hazardous material alert in response to hazard event", both the detection logic and the transmission logic being disclosed in documents D1-D4 (see the corresponding cited passages mentioned for claim 9). The objections raised in respect of claim 9, therefore, also apply, mutatis mutandis, to claim 13 which is thus not new (Article 33 (2) PCT).

Claim 17

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

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The subject-matter of claim 17 corresponds in terms of computer-readable media comprising instructions to that of claim 9. The objections raised in respect of this latter claim, therefore, also apply, mutatis mutandis, to claim 17 which is thus not new (Article 33 (2) PCT).

Claims 2, 4, 10, 12, 15, 16

The subject-matter of dependent claims 2, 4, 10, 12, 15, 16 is also not new (Article 33 (2) PCT) because the same additional features are present in the same combination in document D1:

- Claims 2, 10, 15: pag. 8, lin. 33 - pag. 9, lin. 6, pag. 9, lin. 19-26;
- Claims 4, 12, 16: pag. 3, lin. 28-34.

Claims 2, 3, 10, 11, 14, 15

The subject-matter of dependent claims 2, 3, 10, 11, 14, 15 is also not new (Article 33 (2) PCT) because the same additional features are present in the same combination in document D2:

- Claims 2, 10, 15: par. 0077;
- Claims 3, 11, 14: par. 0077.

Claims 4, 12, 16

The subject-matter of dependent claims 4, 12, 16 is also not new (Article 33 (2) PCT) because the same additional features are present in the same combination in document D3 (col. 7, lin. 25-34).

Claims 2, 7, 10, 15

The subject-matter of dependent claims 2, 7, 10, 15 is also not new (Article 33 (2) PCT) because the same additional features are present in the same combination in document D4:

- Claims 2, 10, 15: pag. 7, lin. 30 - pag. 8, lin. 31, pag. 19, lin. 15-22;
- Claim 7: pag. 11, lin. 1-31, pag. 19, lin. 23-24.

3. Inventive Step (Art. 33 (3) PCT).

Claims 5, 6

The additional features in the subject-matter of claims 5, 6 are a matter of normal design option. Consequently, the subject-matter of claims 5, 6 appears to lack an inventive step (Art. 33(3) PCT).